On ideas that changed man's outlook

PARINAMAM-PRAKRIYAYUM.

UTHPANNAVUM: by Edward O. Dodson Translated by Balakrishnan Cheroopa. Price: Rs.

SASTHRATHINTE DARSANAM: by Philip Franks. Translated by P. A. Mohammed. Price: Rs.

Both published by the State Institute of Languages; Trivan-

DURING the greater part of his life, Darwin devoted himself to his own particular field of research, more thoroughly than most other scientists.

He never went in for teaching r took up any other public apintment. Hence his activities came more and more confined biological speculations and eximents. This may explain ents. This may explain ne embraced with such inten-out also with such limitation, why he embraced with s lity, but also with such he theories he set up.

a volume on the transmutation of species in September, 1858 and published the same in November, 1859, under the title of the Origin of Species. He himself has claimed it to be the chief work of his

His success as a man of science, as stated in his autobiography, has been determined by complex and diversified mental qualities and conditions. Of these, the most important have been the love of science, unbounded patience in long reflecting over any subject, industry in observing and collecting facts and a fair share of invention, as well as of common sense.

The natural explanations of pre-ceeding ages were generally based on the wisdom of the creator and the benefit of man as the cause of all that exists and takes place, an explanation without the slighf all that exists and base of all that exists and base of explanation without the slighest trace of scientific treatment. Iven on his first appearance Darwin was either extolled as one of he greatest geniuses in the world in abused as an ignorant or uncliable dilettante, according to different points of view. If we measure him by his influence on he general cultural development of humanity, then no scientist has to deeply influenced man's general conception of life as Darwin

his discoveries, which later appeared in the proceedings of the Bruenn Society in 1866. The preatness of the work was re-discovered by a peculiar, but by no means an accidental, coincidence by three investigators, in three different places in Europe, De-Vries in Amsterdam, Correns in Germany, Tschermark in Vienna, As Mendel's fellow countryman and biographer Hugo Iltis says, the little essay has given stimulus to all branches of biology. The progress of research since the beginning of the 20th century has any monument of the core of only has 'Mendelism' become the name of a whole vast province of investigation, but all living creatures which follow Mendelian laws in the hereditary transmission of their characters are said to Mendelise".

The theory of genetics and the theory of evolution are, in short, the two main theories which can be considered, in the words of Waddington "worthy of the title fundamental biology. The text book. Evolution: Process and Product by Edward O Dodson, published in 1960, is an elucidation of this "Fundamental biology".

In their origins science and philosophy were indistinguishable and till a hundred and fifty years ago the humanities had a commanding influence in the academic world. Science, as we know it, was hardly taught even in universities. In ancient Greece, philosophy and science were synonymous and the attainment of true science being regarded as the highest objective of philosophy. The separation of science from philosophy has been a long process which is by no means complete. Science, having once cut itself loose from philosophy, was not to be distracted again by metaphysical controversy, not until the 20th century crises of relativity and quantum theory. There has always been isolation between specialities and serious effort is ways been isolation between specialities and serious effort is required to find a common hu-

man factor underlying thand the sciences through specialists might communi

Philosophy of science is the roduct of the growing awareness philosophers of the importance science in intellectual as well in practical life and of sciences in practical life and of sciences who have seen the increasing ecessity of clear thinking about the propositions of their theories, ny philosophy of science which aims generality must apply equily to the physical, biological and locial sciences. As the great historian of science George Sarton as stated — "Humanities are insparable from human creations, hether these be philosophic, dientific, technical or artistic and thether these be philosophic cientific, technical or artistic and terary. It would be foolish to laim that a good poolish to literary. It would be foolish t claim that a good poem or beautiful statue is more humanis-tic or more inspiring than scientific discovery; it all depend on the relation between them an-you".

you".

Philip Frank's Philosophy of Science is a useful text book for the serious student of this topic, which has great relevance today.

The State Institute of languages has done a great service in arranging the translations of these text books. They are published by them under the scheme for production of university level books. They are publish under the scheme from of university level egional languages, spote Government of India

There are few university level text books in Malayalam in various subjects, as hardly any attempts were made so far to prepare them. This is especially true of science textbooks. Any attempt at preparing them, in original or in translation, is praise worthy. It was indeed a delightful experience to read language versions of these two books as they reveal the strength as well as weakness inherent in the situation. The translators, Shri Balakrishnan Cheroopa and Shri P. A. Mohammed, have made a heroic attempt to do their job well.

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NARENDRANATH

Will Argentin bomb with Inc

From T. V. PARASURAM Express News Service

WASHINGTON, Dec. 27
Argentina now has the most vanced nuclear programme in the America, a Washington

Argentina has been doing nuclear research for the last 24
years. Five and a half months
ago it began to operate a nuclear
power plant built at Atucha. The
plant was designed and built by
Siemens, a West German company, and uses natural uranium.
Another nuclear power plant
is to be built by Canada. This,
too, will be fuelled by natural
uranium plants produced by the
United States Argentina was taking a conscious political decision
to stay independent in nuclear
matters.

matters.

It has also made it clear that the question of international inspection will have to be negotiated for each plant separately as it is built.

Argentina is not a signatory to the discriminatory nuclear Non-Proliferation treaty Lika Brazil, India and other countries, Argentina insists that the same rules must apply to the nuclear haves and have-nots.

Argentina has known uranium reserves of 15,000 metric tonnes. Other areas believed to possess

Plea to oil nations and have-nots

BAGDAD, Dec. 27

The vice-chairman of the Iraqi Revolutionary Command Council, Mr. Saddam Hussein, yesterday urged developing nations and oil-producing countries to co-ordinate their efforts with a view to a reexamination of the world monetary system and "the gold issue."

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system and "the gold issue."

He said the two groups of countries ought to hold consultations
within the framework of existing
international bodies, such as the
interim committee in charge of
monetary reform.

"Any country or group of countries which in any way contributes
to an increase in world inflation
must entirely assume its responsi
bilities," he added.

Any major increase in liquidity
inside inclustrial countries would
have "serious consequences" and
could harm the developing nations,
he warned.

Indian Express - 1975 February 08

BOOK REVIEW

Science writing in Malayalam

SASTRA SAHITYAM MALAYA-LATHIL: by C. P. Sridharan, Pub. Sree Narasimha Vilasom Book Depot, Thuravoor, Price— Pub. Sa. Book De. 9.00.

AS an eminent Science writer has put it, Science is the everlasting interrogation by man. This bethe everlasting interrogation of nature by man. This be-gan when ancestral man over-came his superstitious wongan when ancestral man over-came his superstitious won-dering and began to ask— "why?". Man will continue to raise "whys" till his curiosity is extinguished. But when this happens, one feels that man will have lost most of the other things that make him

will have lost most of the other things that make him human.

To-day Science has advanced so much that it occupies a pre-eminent position in the life of man. We should remember that it attracted little attention, even in Universities, until the beginning of the present century. Since then, to quote Charles Singer, the immense and accelerating increase in scientific activity and the resulting mass of real and applicable knowledge has changed every side of life. Having come to control and direct industry, it is now rapidly and manifestly transforming the very face of the earth and the lot of its living inhabitants, whether, human, animal or plant. It has permeated all aspects of human endeavour that one can not really feel at home in the present world, if he has no intelligent grasp of what Science is up to.

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But the obstacles faced by the lay-man for gaining this enlightenment are really formidable. In the words of Lord Richie Calder, with the rapid accumulation of knowledge, with its aggregation of new discoveries and with its impetuous conversion of desk-and-laboratory findings into practical innovations, the fantastic acceleration of scientific progress has arisen. The result has been that the volume of knowledge (Six million published scientific communications, increasing at the rate of half a million a year)—has become a Niagara of information; that the number of Scientists is Goubling every ten years; and that Science is becoming more and more fragmented into specialisations, barely able to communicate with each other, because of the unique language each has invented for its convenience. No wonder, then, that the ordinary intelligent lay-man finds himself overawed and feels that scientists have become a priesthood, creating and conserving their own mysteries.

Specialisation was inevitable in the circumstances and with each generation of scientists, it has grown more and more intense. The publications of specialists regarding their individual work became so voluminous that even fellow specialists found it difficult, if not impossible, to know them. The position can be well illustrated with "Chemical Abstracts"—an important journal in the field of biochemistry, which publishes abstracts of research findings twice a month. Its individual issue has up to four hundred pages, in double column and microscopic print. Each column is numbered separately beginning with the first issue of a year and ending with the last. It covered 475 journals in 1907 when it was founded. The same journal in 1960, covered 9800 journals, abstracted 105,000 articles from 97 countries in 52 languages! This is just a small drop in the ever rising sea of scientific knowledge as biochemistry is only one of the many branches of Science and the layman. It is their duty to bring the obscure into the light. In the obscure into the light. In the

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world of science, as stated by Issac Assimou, brings great aesthetic satisfaction, inspiration to youth, fuffilment of the desire to know and a deeper appreciation of the wonderful potentialities and achievements of the human mind. It is about the contributions of such persons that Mr. C.P. Sricharan has mainly written in his book "Sastra Sahityam Malayalathil."

Kerala's contribution to various fields of scientific knowledge, from early days is by any standard substantial. Unfortunately there is no authoritative assessment of these topics so far. A comprehensive history of such ideas is an essential need for a proper understanding of our rich heritage. A scholarly and illuminating study by Mr. K.V. Sarma, entitled "A history of Kerala school of Hindu astronomy"—may be mentioned here as a relevant effort in this line. He gives the characteristics of Hindu astronomy as it developed in Kerala, its major achievements, highlights and main trends. Some of the significant findings of modern mathematics, found anticipated in the astronomical works produced in mediaeval times in Kerala, are also mentioned in this valuale book.

Many of us may not know that the first printed book containing Malayalam script was an illustrated botanical dictionary of indigenous plants entitled "Hortf Malaharici Pars Duo-decima and Ultima De Herbis Et Diversis Illurum Stecie Buf" (Keralaramam) in twelve volumes. The names of plants were given in Latin, Arabic, Sanskrift and Malayalam. It was printed in 1881. The first book in Malayalam dealing with "natural history" was "Mriga Charitam" by Rev. J.G. Beuttler published in Kerala! The first book in Malayalam dealing with "natural history" was "Mriga Charitam" by Rev. J.G. Beuttler published in Kerala! The first book in Malayalam dealing with in the fort, we can see the names of cience were earlier in his magazine "Paschimodayan" which he started in 1847. This was, in fact, the first attempt made in Malayalam books were also produced relating to voli the growth of this refusion of modern sci

year.

Malayalam is yet to attain the status of a language fit to be a medium for dissemination of medium for dissemination of the status of t medium for dissemination of modern scientific knowledge. Perhaps our people, including the writers, have not yet accepted their mother tongue for such a valuable purpose. They still depend on other languages, mainly lengtish for such enlightenment. English, for such enlightenment.

Sastra Sahityam Malayalathil will help us a great deal to make a proper stock-taking of the present situation. This may perhaps enable us to revitalise our efforts to enrich our language for making it a better instrument of modern knowledege. Mr. Sridharan has a special ability for sifting and selecting relevant facts and presenting them with force and clarity. He has a vigorous and lively style, best suited for such an evaluation. His critical estimate of men and matters is objective and so there can hardly be any ground for disagreement. This is the first book of its nature on science writing in Malayalam and it will serve as a useful and valuable book of reference for a long time to come. Sahityam ble book of r time to come

-KONNIYOOR NARENDRANATH

BOOK REVIEW

Indian Express - 1975 May 17 Good translation of a Moravia novel

iberated

Golden jubilee of Bala Bhavan

inding areas institution directed by F in Puduchery and run k fr. Francis Chiramel of Me Missionary Union, we self-sufficient until som ago when land reforms de it of its valuable riction.